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Morris

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[54] **SLIDABLE BEVERAGE CONTAINER COVER**

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[52] **U.S. Cl.** **220/694**; 220/729; 220/336

[58] **Field of Search** 220/254, 258, 259, 336, 220/694, 716, 729

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,339,053	7/1982	Tarro	220/269
4,366,914	1/1983	Ingram	220/287
4,717,039	1/1988	Ayyoubi	220/253
4,752,016	6/1988	Eads	220/253
4,842,159	6/1989	Hiedrich	220/336 X
4,852,763	8/1989	Dimberio	220/253
4,869,389	9/1989	Cerrone, Jr. .	
4,880,136	11/1989	Englert	220/253

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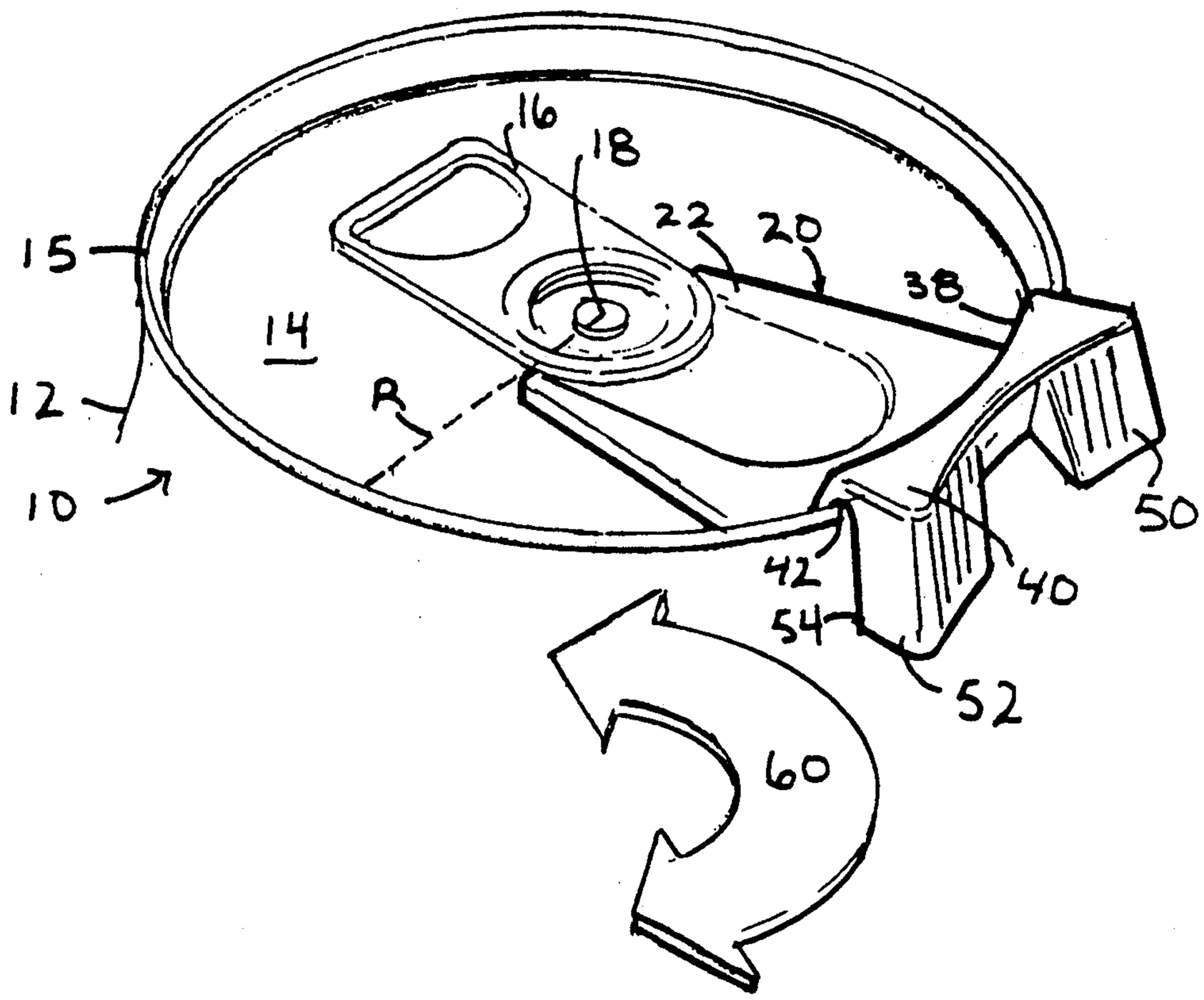
[57] **ABSTRACT**

A plastic slidable removable cover for a beverage container, such as a soda can, that can cover or expose the can opening using the same hand that grasps the container. The cover comprises a tab portion that fits under the rivet of a conventional soda can pull ring and covers the opening created, a periphery engaging portion that grips the lip of the can, and a plurality of serrations facilitating easy sliding of the cover around the lip periphery. The cover can be easily removed for use with other containers.

4 Claims, 2 Drawing Sheets



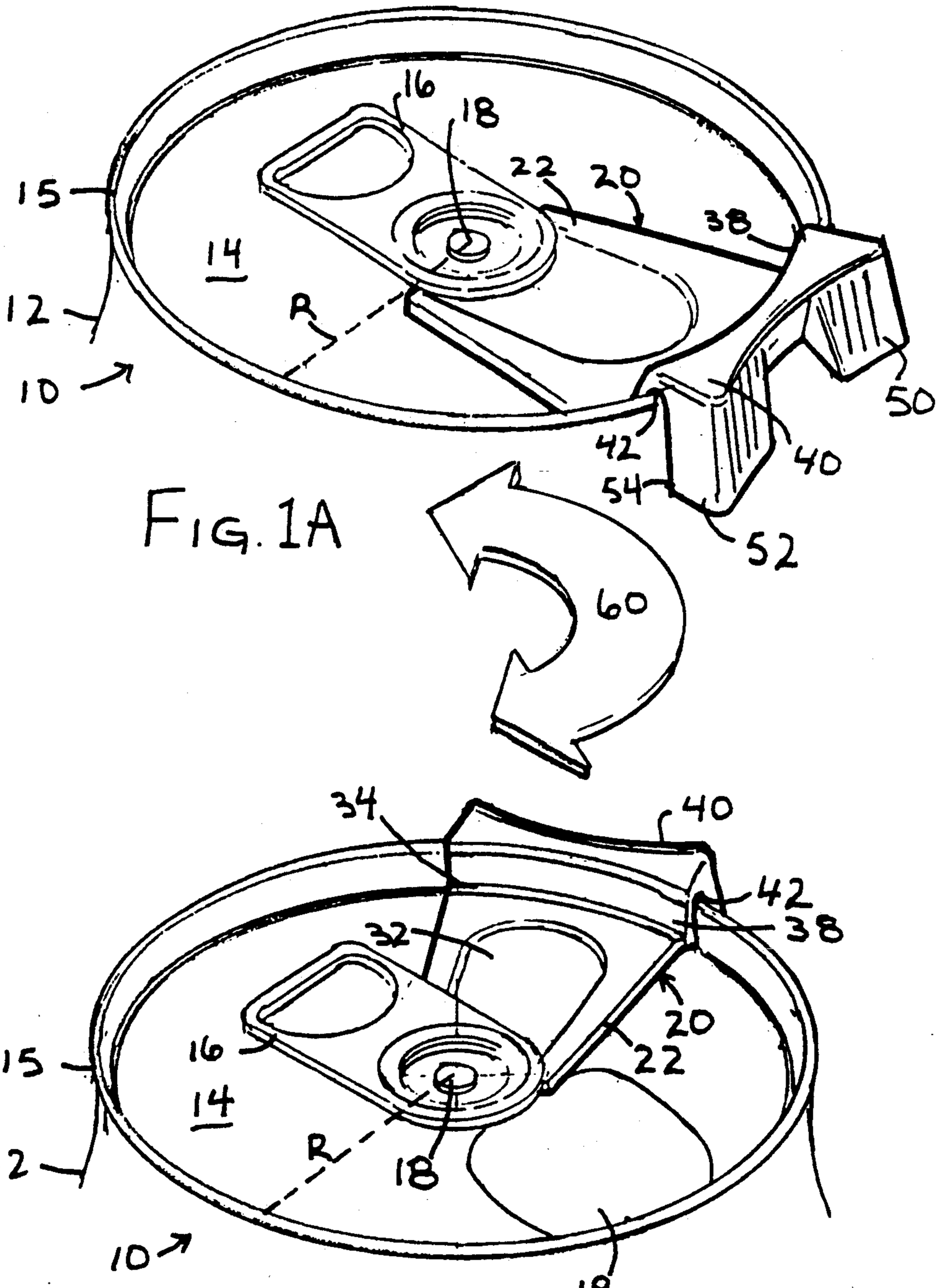

16
18
22
20
38
15
14
12
R
10
42
40
50
54
52
60

FIG. 1A

34
40
42
38
32
20
16
22
15
14
12
R
18
10
19

FIG. 1B

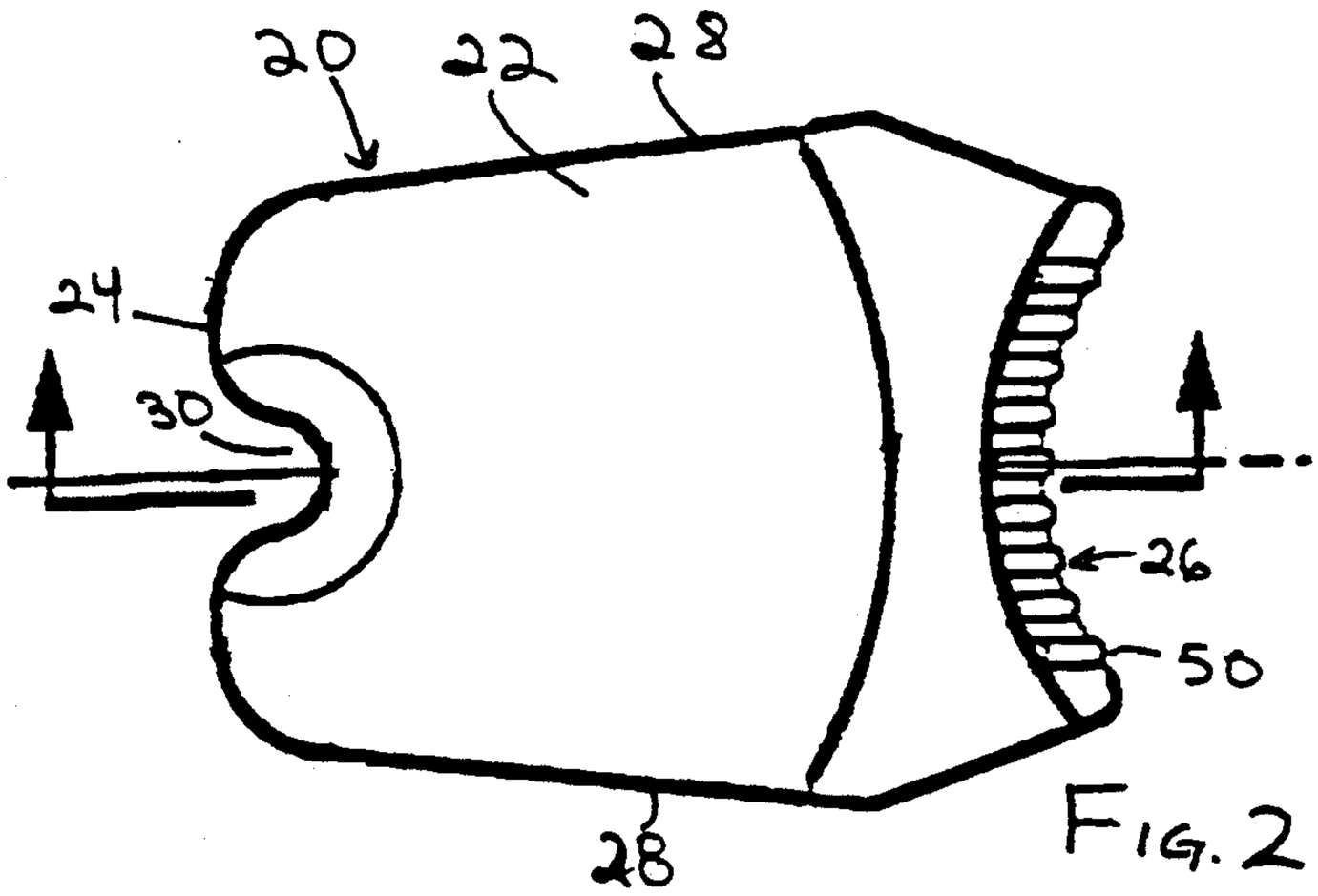


FIG. 2

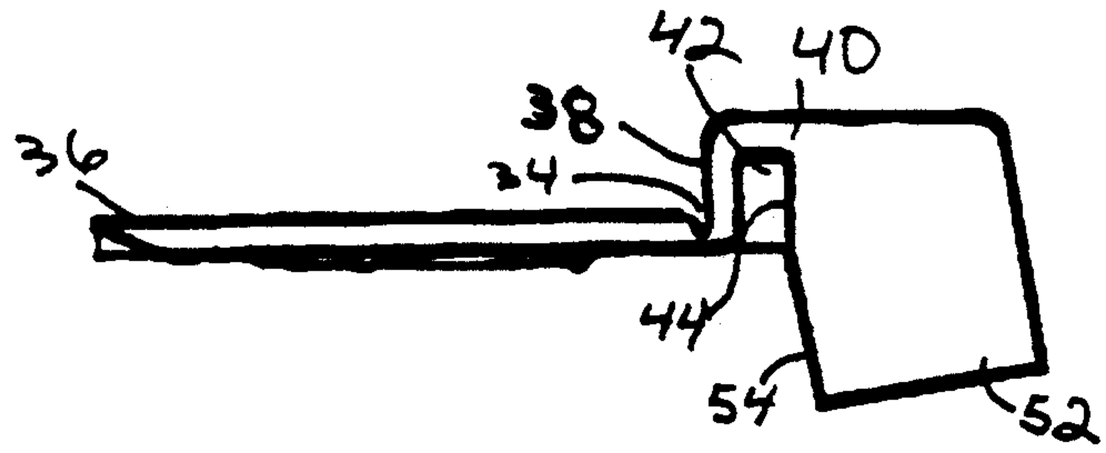


FIG. 3

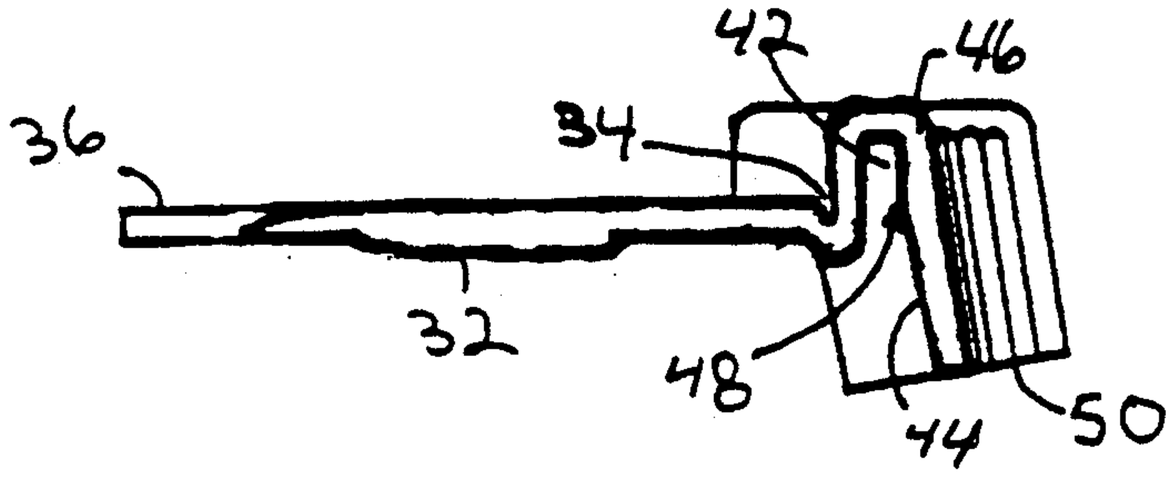


FIG. 4

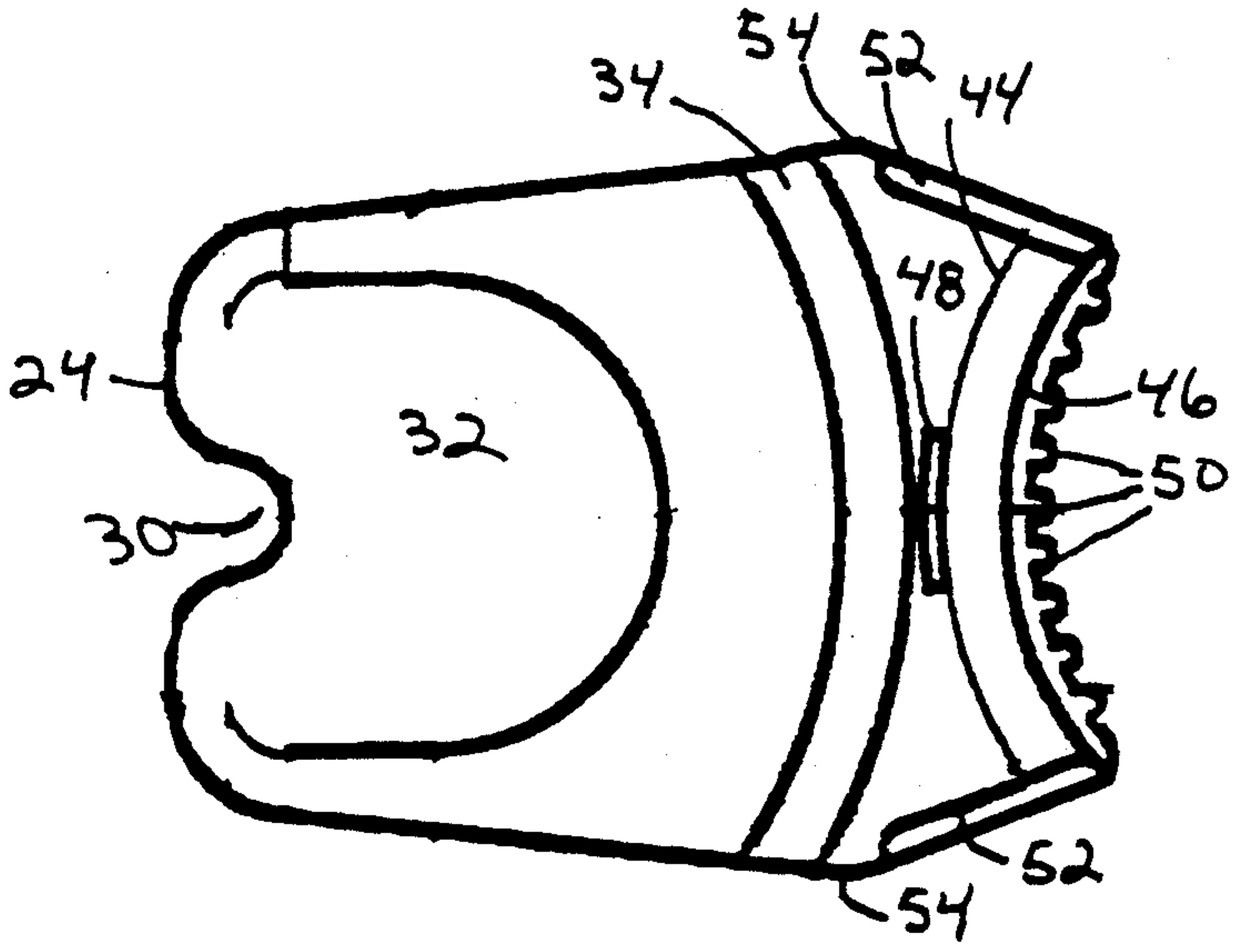


FIG. 5

SLIDABLE BEVERAGE CONTAINER COVER

FIELD OF THE INVENTION

The present invention relates to closure devices, and, more particularly, to a slidable removable cover for beverage containers such as soda cans.

BACKGROUND OF THE ART

In recent years the beverage industry has standardized the overall shape and size of the typical soda pop can. The advent of the pull tab opening mechanism has reduced the prevalence of the sharp metal rings and produced a convenient beverage container. Once opened, the container cannot be conveniently resealed or the opening covered without resort to externally attached covers. Insects and dirt can enter the container and fluid can escape if it is jostled or tipped over. A number of instances have occurred where bees and wasps have crawled into an open container and stung the unsuspecting user on the lips or tongue. Should the user be allergic to bee stings an otherwise enjoyable outing can become a nightmare resulting in a trip to the hospital or possibly even death. It would be desirable to have a means for covering the opening to prevent entry of unwanted material or bugs, yet have the opening be easily accessible when the user wants to take a drink. Covers have been developed that require the user to first completely remove the cover from the container before taking a drink resulting in the user having to hold the cover in the other hand. Other covers do not provide a convenient means for grasping the cover and increase the opportunity to break a nail or spill the contents while opening the cover.

It would be desirable to have a cover that would cover just the opening of the can, that would easily slide to one side to permit sipping of the beverage, and that would be removable and reusable.

Accordingly it is a principal object of the present invention to provide a removable closure means for a beverage container.

It is another object of the present invention to provide an inexpensive reusable cover for covering a conventional soda can.

It is another object of the present invention to provide a slidable cover for a beverage container that can be manipulated by the same hand that holds the container.

SUMMARY OF THE INVENTION

The present invention remedies the deficiencies in the prior art and provides an improved beverage can cover. More particularly, the present invention provides a slidable removable cover for a commonly available beverage container, such as a soda can, having a generally cylindrical shape, a tab opener which when pulled will create an opening in the container and a circumferential lip defining an inner and an outer periphery, comprising: a tab portion having upper and lower surfaces and a front and rear portion; an inner periphery engaging portion attached to the rear of the tab portion comprising a curved inner raised flange having an upper and lower edge and an inner radius of curvature generally corresponding to the radius of the circumferential lip; and, an outer periphery engaging portion comprising an outer flange extending from the upper edge of the inner flange, the outer flange having inner and outer surfaces and having a curved outer portion curved away from the inner flange, a portion of the ends of the curved outer portion being angled in toward the inner flange, the ends capable of engaging the outer periphery, and having a generally horizontal rib attached to the inner surface of the outer flange whereby the inner flange, a portion of the outer flange and the ends of the outer flange define a curved gripping surface capable of engaging the circumferential lip such that the cover can be rotated around the circumferential lip to bring the tab portion over the container opening thereby covering the opening.

The cover of the present invention can be fitted onto the container and slidingly rotated around the lip of the container so that the user can cover or reveal the opening. In this manner bees, ants and other insects, as well as dirt can be prevented from contaminating the fluid contents. Furthermore, the cover can reduce the fluid loss in the event the container is jostled or tipped over.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1A** is a perspective view of a container and a cover of the present invention shown in place over the container opening.

FIG. **1B** is a perspective view of a container and a cover of the present invention shown rotated away from the container opening.

FIG. **2** is a top view of a cover of the present invention.

FIG. **3** is a side view of the present invention.

FIG. **4** is a side cutaway view of the present invention.

FIG. **5** is a bottom view of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawings in which like numerals describe like parts throughout the several figures, FIGS. **1A** and B and FIG. **2** show a perspective view of a beverage container **10** and a cover **20** of the present invention. The container **10** is a standard soda can or similar shape having a cylindrical wall **12**, a lid **14** and a lip **15** circumferentially surrounding the wall **12**. The lip **15** has a radius of curvature noted as "R". Attached to the lid **14** is a tab opener **16** commonly used in the industry. The tab **16** is attached by a rivet **18**. An opening **19** is created when a portion of the lid **14** is pushed into the container **10** in a conventional manner, giving access to the liquid inside.

The cover **20** is preferably made of a plastic material, such as polypropylene or other polymer and preferably has some degree of flexibility. It is to be understood that other suitable materials can be used, such as, but not limited to, metal, wood, ceramic, composite, fiber, and the like. The cover **20** comprises a tab **22** having a front end **24**, a rear end **26** and sides **28**. The sides **28** preferably taper from rear to front, but can be parallel or divergent. A notch **30** having an arcuate shape is located at front end **24**. The tab **22** has a depressed inset portion **32** (when viewed from above) that roughly corresponds to the shape of opening **19**. The rear **26** is curved, having a radius R. An annular channel portion **34** is disposed at rear **26** that corresponds to radius R.

FIG. **3** is a side view of cover **20** shows that tab **22** has a slightly ramped portion **36** upward toward front **24**. This ramp **36** creates a slightly forced fit when tab **22** is fitted under tab opener **16**.

Projecting upward from rear **26** is a flange **38**, having a radius corresponds to the radius of lip **15**. Projecting downward from the rear portion of flange **38** is an outer flange **40**, which curves in a direction opposite that of flange **38**. Between flange **38** and outer flange **40** is disposed an annular groove **42** having a radius of curvature generally corresponding to radius R. The outer flange **40** has an inner wall **44** and an outer wall **46**. A horizontal rib **48** projects from inner wall **44**, as shown in FIG. **4**. On outer wall **46** are preferably at least one serration **50**, as shown in FIG. **5**. The outer flange **40** has ends **52** which angle back toward sides **28**. Each end **52** terminates in an edge **54**, the upper portion of which is generally parallel to flange **38** and the lower portion of which flares away from tab **22**.

The cover **20** is mounted onto container **10** by slipping tab **22** under tab opener **16** in a direction from lip **15** to rivet **18**. The notch **30** fits around rivet **18**. The groove **42** will fit over lip **15** and form a press fit, where the inner edge of lip **15** is gripped by flange **38** and the outer edge of lip **15** is gripped underneath the lip by rib **48** and the upper portion of outer flange edge **54**. When the ramp portion **36** of tab **22** is slid under tab opener **16** it forces insert **32** down slightly to provide a better seal over opening **19** and to maintain cover **20** in proper alignment with container **10**. The cover **20** can be slid around lip **15** when a user is grasping container **10** by manipulating the outer flange ends **52** with the thumb or other fingers of either hand. The serrations **50** improve gripping ability. In this manner, a user, having opened a container **10**, can close off opening **19** by sliding cover **20** in the direction of arrow **60** to cover the opening, and, can gain access to the beverage by sliding cover **20** either way around lip **15** to uncover the opening, as seen in FIGS. **1A** and B.

It is an advantage of the present invention that the cover grips the container by the inner as well as the outer edges of lip **15** because this permits the cover to be slid around the lip without undesirably popping off. Yet, a user can easily remove the cover by applying upward pressure to outer flange **40**. The user can manipulate cover **20** and hold the container with the same hand by sliding cover **20** in either direction around the top with the thumb or other finger

It is to be understood that by minor modification cover **20** of the present invention can be used with containers of various diameters, shapes and opening sizes. A certain degree of tolerance for different diameter lips is built into the design of the present invention. While the invention has been described in connection with certain preferred embodiments, it is not intended to limit the scope of the invention to the particular forms set forth, but, on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.

I claim:

1. A slidable removable cover for a beverage container, said container having a generally cylindrical shape and a radius top and bottom ends, a tab opener which when pulled will create an opening in said top end of said container and a circumferential lip at said top end defining an inner and an outer periphery, comprising:

a tab portion having upper and lower surfaces, and a front and rear portion;

an inner periphery engaging portion attached to the rear of said tab portion comprising a curved inner raised flange having an upper and lower edge and having an inner radius of curvature dimensioned for mating relationship with said circumferential lip; and

an outer periphery engaging portion comprising an outer flange attached to the upper edge of said inner flange, said outer flange having inner and outer surfaces and having a curved outer portion terminating in a pair of ends, said curved outer portion being curved away from said inner flange, the ends of said curved outer portion being angled in toward said inner flange, said ends of said curved outer portion being capable of engaging said outer periphery, and said inner portion of said outer flange having a generally horizontal rib attached to said inner surface of said outer flange,

whereby said inner flange, a portion of said outer flange and said ends of said outer flange define a curved gripping surface capable of engaging said circumferential lip such that said cover can be rotated around said circumferential lip to bring said tab portion over said container opening thereby covering said opening.

2. The cover of claim **1**, wherein said outer flange has at least one serration on said curved outer portion.

3. The cover of claim **1**, wherein said tab portion contains a depressed inset portion and a curved opening defined within said front portion capable of engaging a portion of said tab opener.

4. The cover of claim **3**, wherein said depressed inset portion is generally circle-shaped.

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